



Preparation Guide

for Schools

STEMFest 2023: Darwin's Voyage!

Introduction

Our STEMFest event this year is themed around the inspirational [Darwin 200 Expedition](#). The Darwin 200 crew will be honouring the legacy of Charles Darwin by setting sail on a tall ship known as the Oosterschelde, taking the same route that the famous naturalist took during one of the most important scientific journeys in modern history. Their main aim is to inspire young people from around the globe to take an interest in protecting the natural world and become the lead conservationists of tomorrow. As part of this incredible expedition, they will be arranging for 200 'Darwin Leaders', aged 18-25, to carry out important work with conservation charities and NGOs, at locations which Darwin visited 188 years ago during his epic voyage. They will each study an animal which Darwin observed whilst he carried out his work, research their IUCN status, and consider what can be done to protect them.

Throughout STEMFest 2023, pupils will take part in a variety of STEM based activities amongst the Aquarium exhibits, all of which are inspired by the work of the inspirational Darwin 200 expedition. You can expect scientific drawings, population surveys, and opportunities to use our fantastic Virtual Reality headsets! Each day will finish with an interactive show, which will leave pupils inspired to discover more about the famous naturalist, and how to protect our Ocean and the creatures that inhabit it.

Preparing for your Visit

Before the day

- **Booking Confirmation:** You should have received an email from our Learning Team confirming your booking to STEMFest 2023: Darwin's Voyage. If you would like to make any amendments to your booking, such as arrival time or number of classes, please tell us as far in advance as possible (if it is just a small adjustment, such as 2 or 3 fewer or additional pupils, this can be communicated to NMA staff on arrival).
- **Booking Cancellation terms:** Please let us know as soon as you can if you wish to cancel your booking. We require 7 days' notice of cancellation or significant alteration to the agreed programme. A £50 cancellation fee may be charged if insufficient notice is provided.
- **Risk Assessments:** This would have been sent to you as an attachment. Please email us should you have any questions.
- **Free Teacher Pre-visit:** Once you've made a booking with us, we offer a free teacher pre-visit to familiarise yourself with the site. Please get in touch with us to let us know which day/time you would like to visit, and we will inform the front desk. You may enter for free, but other people accompanying you will need to have a valid day ticket or day plus pass.

- **What to bring:**

- Please ensure that all pupils bring their own pack lunches to the event.
- As your visit will involve a walk from your transport to the Aquarium entrance, and some groups may be seated in our garden for lunch (weather permitting), we recommend you come prepared for all types of weather - suncream, raincoats etc.
- We recommend your pupils wear uniform. However, they are welcome to visit in sensible, regular clothing if preferred.
- All resources for your visit will be provided and made available on arrival.
- We have first aid kits distributed throughout the building, and several first aid trained staff on site. You are however very welcome to bring your own first aid kit if preferred.

Transport and Parking

- **Coach Parking:** There is a coach drop off point at the back of the building. Coaches should only use this space for dropping and picking up. **Please make sure your coach company is aware that they are unable to park at the back of the building.** If you need any information on where coaches can park in the local area, please email us and we will be happy to help.
- **Disabled Parking:** We have 3 disabled parking spaces at the back of the aquarium that can hold minibuses (satnav postcode PL40DX). These are available on a first come first served basis, but users must display a valid disabled badge.
- **Parking Cars & Minibuses:** Please note the Aquarium does not have its own car park. The nearest car parks are the Harbour multi story car park at Coxside (height restrictions apply), and the Lockyer's Quay pub car park (no height restrictions apply). Please check directly with Premier Inn to confirm permission for Lockyer's Quay car park (phone number: 0333 321 1392). Both are directly behind the National Marine Aquarium with a 2-minute walk to the entrance.

- **Premier Inn:** Up to 3 hours - £2.00. Up to 4 hours - £4.00. Up to 5 hours - £5.50. Up to 6 hours - £7.00. Payment to be made at kiosk on exit. Pay by Phone options available.
- **Harbour:** Up to 3 hours - £5.50. Up to 6 hours - £8.50. Up to 12 hours - £10.00. Pay at machine on arrival. Pay by Phone options available.



- **Entering at the NMA:** The entrance is located at the front of the building. If parking at the rear, please follow signs to the main doors and ticketing area. Please report the front desk and inform them of how many students/adults are in your group. A member of our team will be on hand to meet your group.

Payment

- An invoice will be sent out from our Finance Office after your visit, for the exact number of students attending.
- Students with Aquarium Membership or Day Plus Passes will still be required to pay the fee for an educational visit. This is to cover Aquarium staff time and to pay for resources used by the students.

Running of the event

Structure of your day

- This event runs from 10am-2 30pm. Your activities will start promptly at 10 30pm and finish at 2 15pm.
- Please be aware that many school groups are likely to be picked up and dropped off at similar times. It is therefore important to listen carefully to the instructions from Aquarium staff, who will support with ensuring a smooth arrival/departure from the event.

Please see the example timetables below. You will be given an official timetable on arrival.

	10:00-10 30	10:30 – 12:00	12:00 – 12:30	12:30 – 13:30	13:45-14:15
Group 1	Arrival & Introduction	STEM Activities (Exhibits)	Lunch	STEM Workshop (Learning Centre)	Interactive STEM Show!

	10:00-10 30	10:30 – 11:30	11:30 – 12:00	12:00 – 13:30	13:45-14:15
Group 2	Arrival & Introduction	STEM Workshop (Learning Centre)	Lunch	STEM Activities (Exhibits)	Interactive STEM Show!

Activity Summary

STEM Activities: A carousel of STEM activities delivered amongst the Aquarium exhibits, inspired by the work of the Darwin Leaders. Pupils will carry out a population count of local starfish species in our Plymouth Sound area and create some scientific drawings. They will observe the behaviour of a variety of keystone species that can be found in the Atlantic Ocean and collect data on different coral reef species using quadrats at our Great Barrier Reef zone.

STEM Workshop: Our workshop will include a virtual reality tour of the Oosterschelde, as well as the chance to investigate some real-life Ocean specimens. Pupils will also learn about the discoveries that Charles Darwin made during his five-year expedition around the world, after he set sail from Plymouth on the HMS Beagle in 1831. Throughout the workshop, they will create their own unique creature, but will it be adapted to life on our planet? Students will leave with a greater understanding of the theory of evolution, and knowledge of the journey that led to Darwin writing a famous piece of scientific literature: On the Origin of the Species.

Interactive STEM Show: The grand finale of STEMFest 2023 will be an interactive show, delivered in front of our huge Eddystone tank! The show will allow pupils to build upon their knowledge of the theory of evolution, and the achievements of famous Ocean explorers. They will leave inspired to explore the local environment for themselves and to take action to protect it.

Other considerations

- **Accessibility:** The Aquarium has ramps/lifts for individuals using wheelchairs, and accessible toilets at 3 different locations. Please note that we do not have hoists in any of our toilet facilities.
- **Cameras:** We welcome cameras in the Aquarium however, flash photography is not permitted. If you require assistance with camera settings, please ask a member of staff.
- **Visiting the Shop:** Please be aware that there will not be time to visit the Aquarium shop during the event. You are however welcome to stay on after the event finished, to explore the exhibits and visit the shop in small, supervised groups. Please ask members of staff for guidance on arrival should you wish to enter the shop after the event.
- **Free time:** After the event has finished at 2 30pm, you are welcome to explore the building at your own leisure (we close our doors at 5pm). Please ensure that all pupils are supervised by an adult during this time. We have a team of Ocean Discovery Rangers around the building who are happy to educate and engage our visitors. You can spot them in their dark blue Aquarium t-shirts with white writing on the back - ask them anything!

Safety Notes

The following Safety Notes have been put together based on our own Risk Assessment, which would have been provided as part of the booking process. It is requested that you read these notes prior to your visit so that any queries can be addressed in advance:

- Please be aware that teachers are responsible for the safety and behaviour management and of students at all times during their visit. This is not the role of Aquarium staff members. This includes getting their party safely from their chosen transport to the main entrance of the Aquarium.
- Please ensure that when, if you are exploring the building without a guide, you are your students are split into smaller groups to avoid congestion. If you are bringing primary aged students, all children must be accompanied by an adult at all times.
- Group leaders should have a full list of all children and adults visiting the Aquarium.
- Stairs, slopes, dark areas, winding corridors, walls, and safety rails occur throughout the Aquarium. Visitors should be not run or climb for their own safety and the safety of other Aquarium users.
- Occasionally water spillage may occur especially near open tanks, so care is needed to avoid slipping.
- Some of the exhibits including the rock pool are open tanks. Putting hands or objects into the water or touching the animals is NOT allowed as this may be harmful to both animals and children.
- Some exhibits have viewing areas with curved windows. Care must be taken to avoid bumping heads.
- The Learning Centre contains a number of potential hazards e.g. scissors, craft materials, specimens on display etc. Children should NOT be left unsupervised.
- The Sea-cret Garden is a closed-in outdoor area with picnic tables for our visitors to use. There is to be no climbing whatsoever on the fences as in some places they have steep drops on the other side.
- The Aquarium has the right to ask group leaders to remove students from the Aquarium, any individual whose behaviour is considered to be unacceptable, or those who pose a threat to the safety of the members of the public, or to the animals on display.
- A team of uniformed Ocean Discovery Rangers trained in first aid and emergency procedures and with access to radios are on site at all times.
- In the event of an emergency, listen for announcements over the tannoy. The Aquarium staff will ensure the building is evacuated safely – listen to their instructions.

Pre and Post Activity Suggestions

Pre-STEMFest Activities

- We advise you read-up on the Darwin200 expedition, so that your pupils can learn all about our inspirations behind STEMFest 2023: Darwin's Voyage! Find further details here: [Vision - Darwin200](#)
- Every Friday at 2pm from now until July 2024, there will be a 'World's Most Exciting Classroom' live lesson delivered by the Darwin 200 team! Please visit [Online Classroom - Darwin200](#) to find out more.
- You might like to consider reading about Charles Darwin in the classroom, so that pupils come along to the event with some prior knowledge of his life and achievements. Key terms linked to his theory of evolution will be covered on the day, but you might like to do some learning around these prior to the event.

Post-STEMFest Activities

- Watch the live stream of Stu Higgs (Schools Programme Lead at the NMA) from the Oosterschelde boat as part of the Darwin200 route. We will be in touch with information.
- Get your class or even your whole school to take part in a BioBlitz and be in with the chance to win a special prize! Completing the BioBlitz can help your school achieve the [Eco Schools Green Flag Award](#).
- Complete the second part of the evolution game, that the pupils would have played in their workshop, back at school. Then, get creative with your creatures and enter our competition to win the chance to win an awesome prize!

All of our resources can be found at [In Person STEMFest Resources - Ocean Conservation Trust](#).

Additional Activities

- Be inspired by the stories of the winners of the Explorers Against Extinction Young Conservationist Award 2023 - <https://explorersagainstextinction.co.uk/initiatives/young-conservationist-awards/>
- Get involved with the Shark Trust's Great Eggcase Hunt. Find further details here - <https://www.sharktrust.org/greateggcasehunt>
- Take part in the Wild Isles Schools for Nature activities. Find further details here - <https://www.saveourwildisles.org.uk/schools>
- Work towards achieving the Jon Muir Award which focuses on wild places. Find further details here - <https://www.johnmuirtrust.org/john-muir-award>
- Young people ages 13 and up can join the Marine Conservation Society's Youth Ocean Network - <https://www.mcsuk.org/what-you-can-do/fun-learning/young-people/youth-ocean-network/>